

Form 3160-3  
(April 2004)

**CONFIDENTIAL**

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMNM 114969	
6. If Indian, Allottee or Tribe Name ---	
7. If Unit or CA Agreement, Name and No. ---	
8. Lease Name and Well No. Owl, 20504 JV-P, #3 <b>(305309)</b>	
9. API Well No. 30-015-38341	
10. Field and Pool, or Exploratory WELCH Hollow (Delaware) <b>(64030)</b>	11. Sec., T. R. M. or Blk. and Survey or Area Sec. 18, T26S-R27E
12. County or Parish Eddy	13. State NM
14. Distance in miles and direction from nearest town or post office* 14 miles southwest from Malaga, NM	15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1660'
16. No. of acres in lease 760.24	17. Spacing Unit dedicated to this well 40 acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1000'	19. Proposed Depth 5900'
20. BLM/BIA Bond No. on file NM1195	21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3253' <b>GL</b>
22. Approximate date work will start*	23. Estimated duration 25 days
24. Attachments	

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature <i>Pam Inskeep</i>	Name (Printed/Typed) Pam Inskeep	Date 09/20/2007
Title Regulatory Administrator		

Approved by (Signature) <i>/s/ James Stovall</i>	Name (Printed/Typed) <i>/s/ James Stovall</i>	Date NOV 15 2007
Title FIELD MANAGER		
Office CARLSBAD FIELD OFFICE		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

**APPROVAL FOR TWO YEARS**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

**RECEIVED**  
NOV 29 2010  
NMOCD ARTESIA

Carlsbad Controlled Water Basin

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

Received  
10-22-07

### APPLICATION FOR DRILLING

**BTA OIL PRODUCERS**  
**Owl, 20504 JV-P, NO. 3**  
**2180' FNL & 1660' FEL**  
**Sec. 18, T26S, R27E**  
**Eddy County, New Mexico**

In conjunction with Form 3160-3, Application for Permit to Drill, BTA Oil Producers submits the following 10 items for pertinent information in accordance with BLM requirements:

1. Geologic surface formation is Quaternary.
2. Estimated top of geologic markers & depths of anticipated fresh water, oil or gas:

Base Salt	1,800'	
Delaware	2,015'	Oil
Ramsey	2,085'	Oil
Brushy Canyon	3,970'	Oil
Bone Spring Lm	5,655'	Oil

No other formations are expected to yield oil, gas, or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13-3/8" csg at 400' and circulating cement back to surface. Potash/fresh water sands will be protected by setting 8-5/8" csg at 1900' and circulating cement back to surface. The Delaware and Bone Spring intervals will be isolated by setting 5-1/2" csg to total depth and circulating cement above the base of the 8-5/8" casing.

All shows of fresh water and minerals will be reported and protected. A sample will be taken of any water flows and furnished to the BLM, Division of Minerals. All oil and gas shows will be adequately tested for commercial possibilities, reported and protected.

3. Proposed Casing and Cementing Program:

Hole Size	OD Casing	Setting From	Depth to	Weight	Grade	Joint	Collapse Factor	Burst Factor	Tension Factor
17-1/2"	13-3/8"	0	400'	54.5#	J55	STC	5.92	2.76	23.27J
11"	8-5/8"	0	1,900'	24#	J55	STC	1.39	1.97	5.30J
7-7/8"	5-1/2"	0	5,900'	17#	J55	LTC	1.17	1.88	2.47J

Depending upon availability at the time that the casing is run, equivalent weights and grades may be substituted.

All casing will be new.

4. Cement Program:

13-3/8" casing will be cemented with 400 sx Prem Plus w/2% CaCl<sub>2</sub>, circulated to surface. 14.8 ppg, 1.35 yield.

8-5/8" casing will be cemented with 700 sx Light Prem Plus w/2% CaCl<sub>2</sub>, 1/4#/sx Flocele, 12.5 ppg, 1.98 yield. Tail with 400 sx Prem Plus w/2% CaCl<sub>2</sub>. 14.8 ppg, 1.35 yield, circulated to surface.

5-1/2" casing will be cemented with 200 sx Interfill C w/1/4#/sx Flocele, 11.9 ppg, 2.45 yield. Tail with w/800 sx Super H w/3#/sx salt, 0.5% Halad (R)-344, 5 #/sx Gulsonite, 0.4% CFR-3, 13.2 ppg, 1.64 yield, to cement back above 8-5/8" shoe.

Note: All casing strings will be pressure tested to 0.22 psi/ft. of setting depth or 1500 psi (whichever is greater) after cementing and prior to drillout.

5. Pressure Control Equipment:

The blowout preventer equipment (BOP) shown in Exhibit A will consist of a (3M system) double ram type (3000 psi WP) preventor and a bag-type (Hydril) preventor (3000 psi WP). Both units will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and 4-1/2" drill pipe rams on bottom. The BOP's will be installed on the 13-3/8" surface casing and utilized continuously until TD is reached. All BOP's and associated equipment will be tested as per BLM drilling Operations Order No. 2. Blind rams will be tested upon installation. *and each trip per O.O.Z.*

Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines, and choke manifold having a 3000 psi WP rating.

6. Mud Program:

Surface to 400': 8.6-9.2 ppg fresh water spud with 35 to 45 sec/1000 cc viscosity.

400' to 1,900': Brine water. Will use lime for pH control in range 10 to 11. Will sweep hole with gel slugs as required for hole cleaning. Mud wt = 10 ppg.

1,900' to TD: 8.6 to 9.2 ppg controlled brine water. Will use lime for pH control in range 10 to 11. Will sweep hole with salt gel slugs as required for hole cleaning. Will use paper for seepage losses. Will adjust fluid weight as required using brine water.

7. Auxiliary Equipment:

- a) Upper Kelly cock valve with handle available.
- b) Lower Kelly cock valve with handle available.
- c) Safety valves and subs to fit all drill string connections in use.
- d) Monitoring of mud system will be mechanical.
- e) H<sub>2</sub>S detection equipment will be in operation after drilling out the 8-5/8" csg shoe until the 5-1/2" csg is cemented. Breathing equipment will be on location upon drilling the 9-5/8" shoe until TD is reached.

8. Testing Logging and Coring Program:

Drill Stem Tests will be based on geological sample shows.

Open electrical logging program will be:

- i. TD to Intermediate Csg: Gamma Ray/Compensated Neutron
- ii. TD to Surface: Dual Laterolog, Gamma Ray, Compensated Neutron, Density, Sonic.
- iii. No coring program is planned.
- iv. Additional testing will be initiated subsequent to setting the 5-1/2" production csg. Specific intervals will be targeted based on log evaluation, geological sample shows, and drill stem tests.

9. Potential Hazards:

No abnormal pressures or temperatures are anticipated. If H<sub>2</sub>S is encountered, the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP: 2550 psi. Estimated BHT: 110° F. No H<sub>2</sub>S is anticipated to be encountered.

10. Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon as possible after BLM approval and as soon as a rig is available. Move in operations and drilling is expected to take 20 days. If production casing is run, an additional 30 days will be needed to complete the well and construct surface facilities and/or lay flowlines to place the well on production.

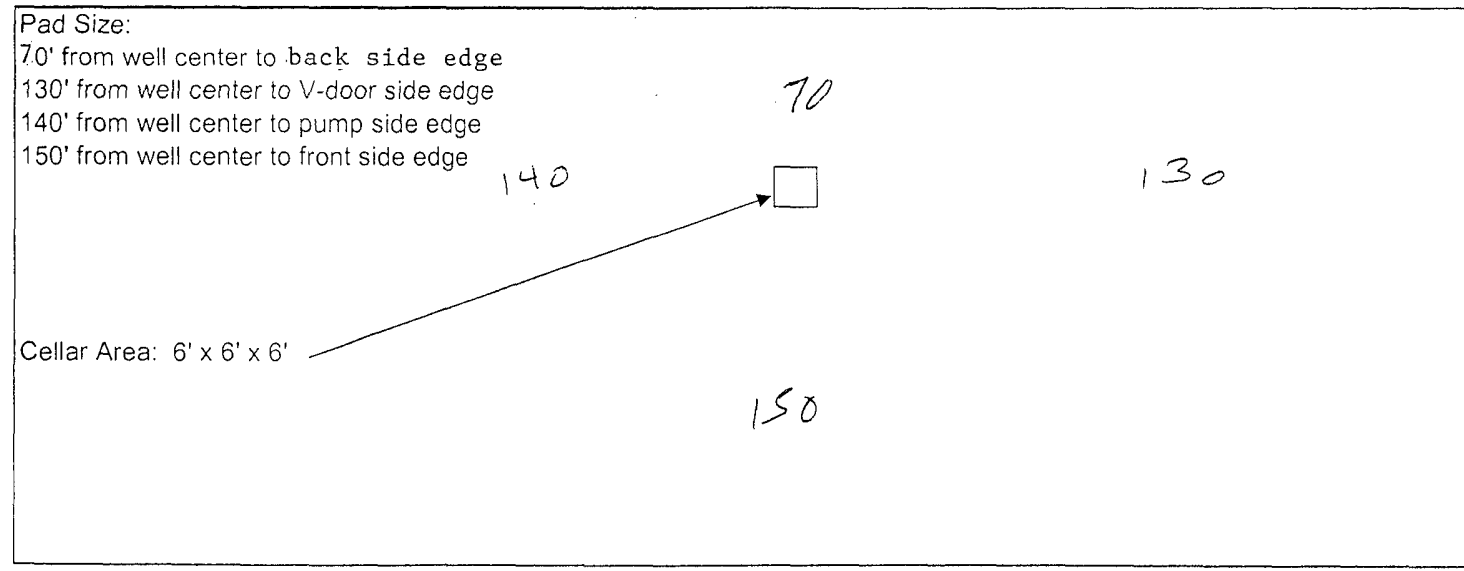
OLD COPY

BTA OIL PRODUCERS - PROPOSED LOCATION

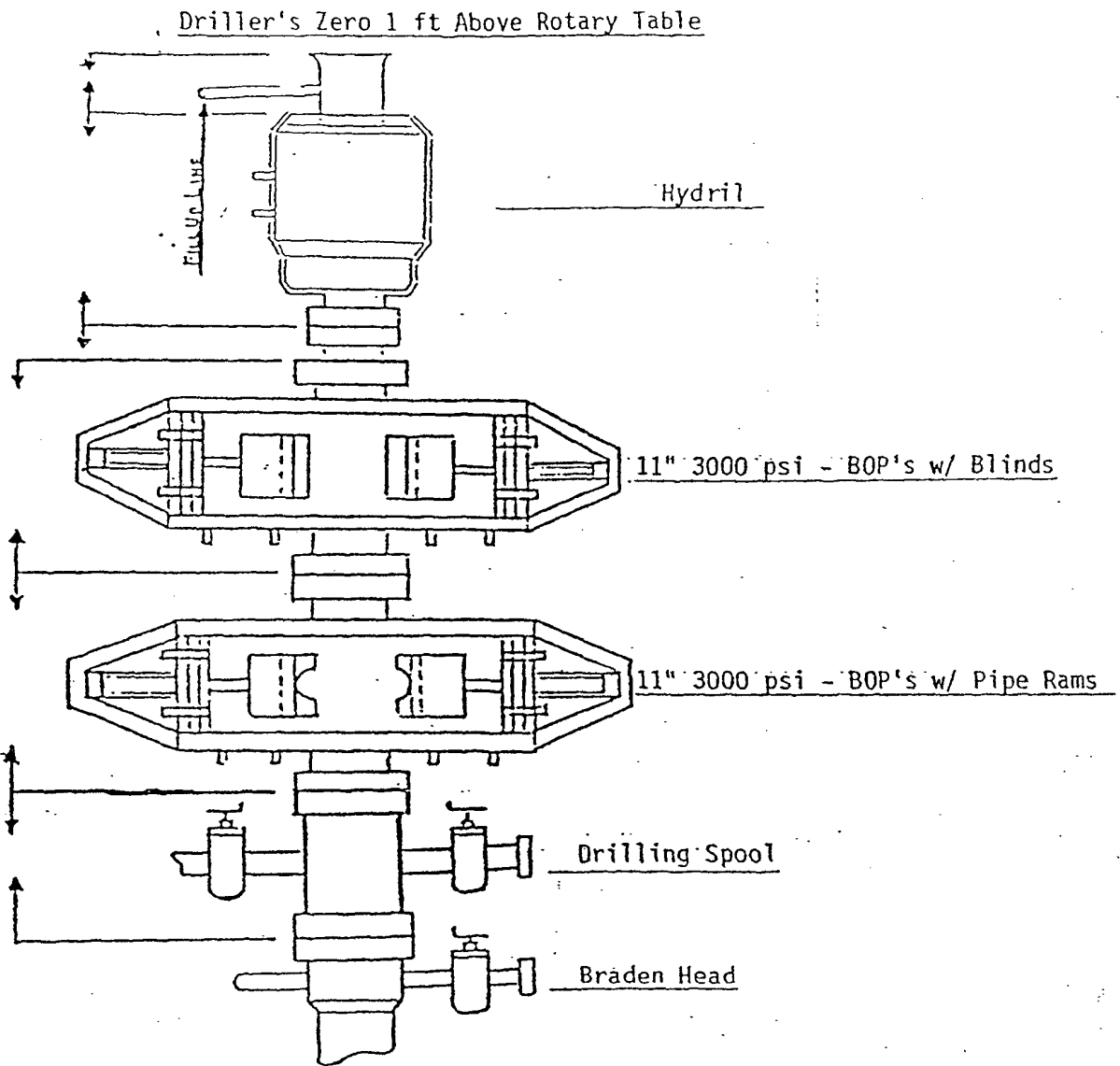
**BTA OIL PRODUCERS**  
**#3, OWL, 20504 JV-P**  
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PROPOSED LOCATION SIZE  
RIG TBD

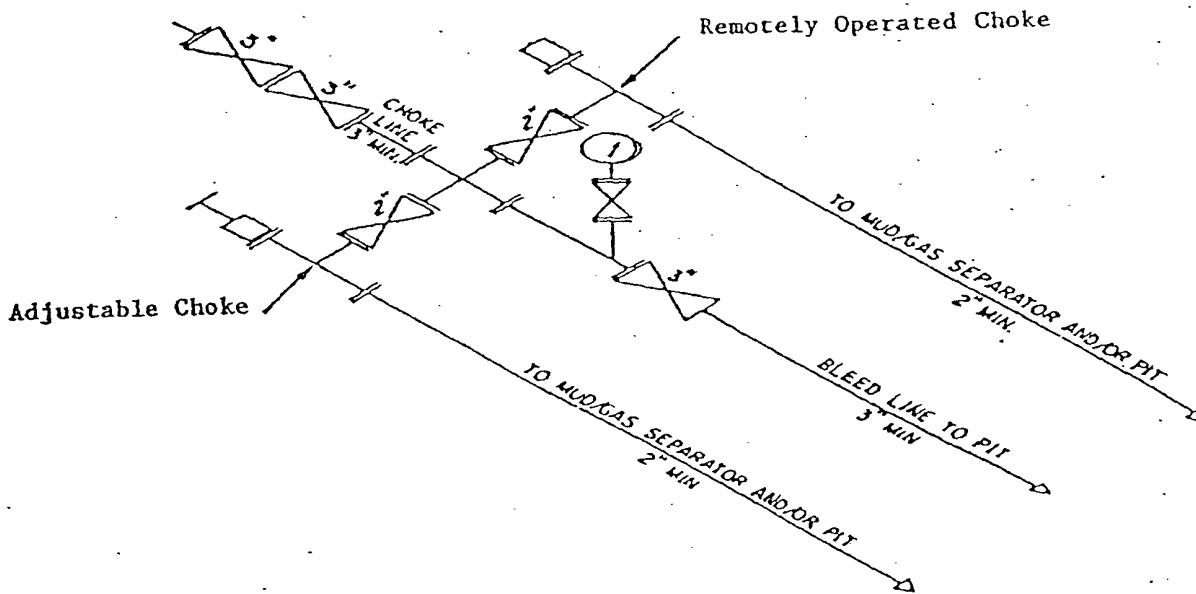
Entrance roads to be located as per BLM  
inspector recommendation



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3M CHOKES MANIFOLD EQUIPMENT — CONFIGURATION MAY VARY

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